

reservoir, FIG. 6B depicts expulsion of excess solution into a waste container, and

FIG. 6C indicates deposit of a desired solution into a vacant reservoir, all using the
same capillary--

IN THE CLAIMS

Kindly cancel claims 4, 5, 7, and 8, amend claims 1-3, 6, 9-11, and 14, and add
new claims 31-35 as follows:

1. (Amended) A liquid-handling system for transferring liquid back and forth
from at least one first container to at least one second container, comprising:

[a means for sustaining a pressure differential between solutions in contact with
two ends to drive transport,]

a first container;

a second container;

a housing encasing said first container in an pressure-tight manner;

a capillary tube having predetermined length and a predetermined internal
diameter, wherein a first end of said [predetermined] tube is positioned near the bottom
of said first container, [and] wherein said tube extends through said housing, terminating
in a second end positioned at or above [a predetermined] said second container; and,

[means for increasing the relative pressure within said means for sustaining a
pressure gradient in contact with two ends to drive transport] a computer-controlled
pressure-altering device, attached to the housing in a pressure-tight manner, that
changes the pressure within said housing relative to the pressure outside the housing;

[whereby at least one of said liquid contained in said first container is transferred through said capillary tube to said second container when said a pressure gradient or difference is applied].

wherein the pressure-altering device applies a pressure differential that causes liquid contained in either the first container or the second container to be transferred through the capillary tube.

2. (Amended) The system as defined in claim 1, wherein said [predetermined] capillary tube is sealed through a wall of said housing in a pressure-tight manner [means for sustaining a pressure differential between solutions in contact with two ends to drive transport in a pressure-tight manner, containing said at least one first container].

3. (Amended) The system as defined in claim 1, [whereby at least one of said liquid contained in said first container is transferred through said capillary tube by means of at least one of an intrinsic and an extrinsic] wherein said computer-controlled pressure-altering device includes a vacuum source.

6. (Amended) The system as defined in claim [5] 1, further comprising a plurality of said first containers [deployed in a first array], and a plurality of said second containers [deployed in a second array], wherein at least one capillary tube transfers liquid between said plurality of first and second containers.

9. (Amended) The system as defined in claim 1, wherein said [at least one] capillary tube is constructed of a material selected from the group consisting of [pulled glass, pulled glass with an external coating,] polyamide, polyethylene, polypropylene, polytetrafluoroethylene, polyester, PEEK (polyethylenetherketone), pulled glass, pulled
glass with an external coating, stainless steel and other chemically [unreactive] -12
nonreactive materials.

10. (Amended) The system as defined in claim [9] 1, wherein said [means for raising said pressure within said means for sustaining a pressure gradient between solutions in contact with two ends to drive transport] computer-controlled pressure-altering device further comprises a source of pressurized gas selected from the group consisting of air, nitrogen, argon, helium, and combinations of these gases [the same and the like].

11. (Amended) The system as defined in claim 10, wherein said pressure differential is [at least one of raised to between] from about 0.5 psi [lb. per square inch and] to about 10 psi, [lb. per square inch] wherein said computer-controlled pressure-altering device is [and drawn by] a vacuum source having a predetermined force value.

14. (Amended) The system as defined in claim 1, whereby solutions are deposited and removed in either direction [by at least one of sequential and parallel transport of said solutions from a well] from a container having at least two capillaries,

including the deposit of two or more solutions to be mixed and removal of a resulting mixture by an additional capillary.

31. (New) The system as defined in claim 6, further comprising:

a first manifold, wherein said first manifold holds said first end of said at least one capillary tube near the bottom of said plurality of first containers; and,
a second manifold, wherein said second manifold holds said second end of said at least one capillary tube in a manner to deliver liquid to said plurality of second containers.

32. (New) A liquid-handling system for transferring liquid back and forth between containers, the system comprising:

a first container;
a plurality of second containers;
a housing encasing the first container in a pressure-tight manner;
at least two capillary tubes, each of which has a first end and a second end, wherein the first end is positioned near the bottom of said first container, the second end is positioned at or above one of said second containers, and the tubes extend through the housing;

a computer-controlled pressure-altering device, attached to the housing in a pressure-tight manner, that changes the pressure within the housing relative to the pressure outside the housing;

wherein the pressure-altering device applies a pressure differential that causes liquid to be transferred through the capillary tubes between the first container and the plurality of second containers.

33. (New) The liquid-handling system of claim 32, wherein two second ends of two capillary tubes are positioned at or above one second container.

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34. (New) The liquid-handling system of claim 32, further comprising a plurality of first containers and a plurality of second containers.

35. (New) A liquid-handling system for transferring liquid back and forth between at least three containers, the system comprising:

a first container;

a second container;

a third container;

a housing encasing the first container in a pressure-tight manner;

a first capillary tube and a second capillary tube, each tube having a first end and a second end,

wherein the first end of the first tube is positioned near the bottom of the first container, the first tube extends through the housing, and the second end of the first tube is positioned at or above the second container;